IN THE CLAIMS:

No claims have been amended. All claims pending and current status for each are reproduced below.

1.   (Previously Presented) An optical sensing assembly for a computer input device configured to receive power from a self-contained power source, the optical sensing assembly comprising:

> a photo-sensitive element configured to receive reflected light from a light source to produce a first image data associated with a first image and a second image data associated with a second image;

> an image data processing logic coupled to the photo-sensitive element for receiving the image data and configured to detect activity based on the image data and to qualify detected activity as false activity based on statistical analysis of past activity; and

> a power control logic operatively coupled to the image data processing logic and configured to implement a native power control mode wherein an internal algorithm changes the power consumption of the optical sensing assembly from a full power mode to one or more lower power modes based on the image data.

2.   (Original) The optical sensing assembly of claim 1, wherein the photo-sensitive element is one of a CCD array or a photo diode.

3.   (Original)   The optical sensing assembly of claim 2, wherein the photo-sensitive element is a CCD array having a set of pixels and the image data comprises a bit vector corresponding to a set of states of the set of pixels.

4.   (Original)   The optical sensing assembly of claim 1, further comprising a focusing lens coupled to the photo-sensitive element for focusing the reflected light to the photo-sensitive element.

5.   (Previously Presented)   The optical sensing assembly of claim 1, wherein the image data processing logic is further configured to translate the image data to one of position data or displacement distance data.

6.   (Previously presented) A method for detecting movement with a photo sensing device configured to receive power from a self-contained power source, the method comprising:

  receiving reflected light from a light source to produce a first image data associated
        with a first image and a second image data associated with a second image;

  determining image difference data from differences between the first image data and
        the second image data;

  detecting activity based on the image difference data and determining that the
        detected activity comprises false activity based on statistical analysis of past
        activity; and

  implementing a native power control mode wherein an internal algorithm changes the
        power consumption of the photo-sensing device from a full power mode to
        one or more lower power modes based on the image difference data and the
        determination that the detected activity comprises false activity.

7.   (Previously Presented) A method of managing power consumption of a wireless device having a plurality of power consumption modes, the method comprising:

in a first power consumption mode:

operating the wireless device at a first power level,

in response to receiving a first activity data and determining that it does not comprise false activity data based on statistical analysis of past activity, maintaining the first power consumption mode, and

in response to receiving no activity data for a time period associated with the first power consumption mode, transitioning to a second power consumption mode;

in the second power consumption mode:

operating the wireless device at a second power level that is less than the first power level,

in response to receiving a second activity data, transitioning to the first power consumption mode, and

in response to receiving no second activity data for a time period associated with the second power consumption mode, transitioning to a third power consumption mode; and

in the third power consumption mode:

operating the wireless device at a third power level that is less than the second power level, and

in response to receiving a third activity data, transitioning to the first power consumption mode.

8.   (Previously Presented) The method of claim 7, wherein the second activity data comprises motion detection.

9.   (Previously Presented) The method of claim 8, wherein the motion detection is determined through a comparison of images on a photosensor.

10.   (Previously Presented) The method of claim 7, wherein the third activity data comprises motion detection.

11.   (Previously Presented) The method of claim 10, wherein the motion detection is determined through a comparison of images on a photosensor.

12.   (Previously Presented) The method of claim 10, wherein the motion detection is determined through a change of pixel on a photosensor.

13.   (Previously Presented) The method of claim 7, wherein the first activity data is derived through interferometric techniques.

14.   (Previously Presented) The method of claim 7, wherein the third activity data is derived through user input.

15.   (Previously Presented) The method of claim 14, wherein the user input comprises selecting a button on the wireless device.

16.   (Previously Presented) The method of claim 14, wherein the user input comprises turning a wheel on the wireless device.

17.   (Previously Presented) The method of claim 7, wherein the third power consumption mode further comprises, in response to receiving no third activity data, maintaining the third power consumption mode.

18.   (Previously Presented) The method of claim 7, wherein the third power consumption mode further comprises, in response to receiving no third activity data for a period of time associated with the third power consumption mode, transitioning to a fourth power consumption mode.

19.   (Previously Presented) The method of claim 7, wherein the wireless device comprises a plurality of power consuming modules, and wherein the second power consumption mode further comprises powering down one of the plurality of the power consuming modules.

20.   (Previously Presented) The method of claim 19, wherein the third power consumption mode further comprises powering down a second power consuming module.

21.   (Previously Presented) The method of claim 19, wherein powering down comprises decreasing power.

22.   (Previously Presented) The method of claim 19, wherein powering down comprises shutting off power.

23.   (Cancelled)

24.   (Previously Presented) A method of managing power consumption of a wireless device having a plurality of power consumption modes, the method comprising:

in a first power consumption mode:

> querying for a first activity data at a first average polling rate,
>
> in response to receiving the first activity data, determining that it does not represent false activity based on statistical analysis of past activity, maintaining the first power consumption mode, and
>
> in response to receiving no first activity data for a time period associated with the first power consumption mode, transitioning to a second power consumption mode;

in the second power consumption mode:

> querying for a second activity data at a second average polling rate that is lower than the first average polling rate,
>
> in response to receiving the second activity data, transitioning to the first power consumption mode, and
>
> in response to receiving no second activity data for a time period associated with the second power consumption mode, transitioning to a third power consumption mode; and

in the third power consumption mode:

> querying for a third activity data at a third average polling rate that is lower than the second average polling rate, and
>
> in response to receiving the third activity data, transitioning to the first power consumption mode.

25. (Cancelled)

26.   (Cancelled)

27.   (Previously Presented) The method of claim 24, wherein querying for the second activity data comprises capturing a single image during each poll at the second average polling rate.

28.   (Previously Presented) The method of claim 27, wherein querying for the second activity data comprises capturing a plurality of images during each poll at the second average polling rate.

29.   (Previously Presented) The method of claim 24, wherein querying for the third activity data comprises capturing a single image during each poll at the third average polling rate.

30.   (Previously Presented) The method of claim 29, wherein querying for the third activity data comprises capturing a plurality of images during each poll at the third average polling rate.

31.   (Previously Presented) The method of claim 24, wherein the second power consumption mode further comprises:

　　　　capturing a single image during a single poll; and

　　　　comparing the captured image to a previously captured image from a previous poll.

32.   (Previously Presented) The method of claim 24, wherein the second power consumption mode further comprises:

　　　　capturing a plurality of images during a single poll; and

comparing one of the plurality of captured images to another one of the plurality of captured images.

33. (Previously Presented) The method of claim 24, wherein the third power consumption mode further comprises:

capturing, during a single poll, a single image comprising of a plurality of pixels, each pixel having a value; and

detecting changes in the values of the plurality of pixels in the captured image from the values of a plurality of pixels in a previously captured image from a previous poll.

34. (Previously Presented) The method of claim 24, wherein the third power consumption mode further comprises:

capturing, during a single poll, a plurality of images, each of the plurality of images comprising of a plurality of pixels, each pixel having a value; and

detecting changes in the values of the plurality of pixels in one of the plurality of captured images from the values of the plurality of pixels in another one of the plurality of captured images.

35. (Previously Presented) The method of claim 24, wherein the second activity data corresponds to motion detection.

36. (Previously Presented) The method of claim 35, wherein the motion detection is determined through a comparison of images on a photosensor.

37.   (Previously Presented) The method of claim 36, wherein the comparison of images comprises detecting pixel changes on the photosensor.

38.   (Previously Presented) The method of claim 24, wherein the third activity data corresponds to motion detection.

39.   (Previously Presented) The method of claim 38, wherein the motion detection is determined through a comparison of images on a photosensor.

40.   (Previously Presented) The method of claim 39, wherein the comparison of images comprises detecting a change of a pixel on the photosensor.

41.   (Previously Presented) The method of claim 40, wherein the first activity data is obtained by interferometric techniques.

42.   (Previously Presented) The method of claim 24, wherein the first activity data is derived through interferometric techniques.

43.   (Previously Presented) The method of claim 24, wherein first activity data corresponds to user input.

44.   (Previously presented) The method of claim 43, wherein the user input comprises one from a group consisting of a selection of a button or a turn of a wheel on the wireless device.

45.   (Previously Presented) The method of claim 24, wherein the third power consumption mode comprises, in response to receiving no third activity data, maintaining the third power consumption mode.

46. (Previously Presented) The method of claim 24, wherein the third power consumption mode comprises, in response to receiving no third activity data for a period of time associated with the third power consumption mode, transitioning to a fourth power consumption mode.

47. (Previously Presented) The method of claim 46, wherein the wireless device comprises a plurality of power consuming modules, and wherein the second power consumption mode further comprises powering down one of the plurality of the power consuming modules.

48. (Previously Presented) The method of claim 47, wherein the third power consumption mode further comprises powering down a second power consuming module.

49. (Previously Presented) The method of claim 47, wherein powering down comprises decreasing power.

50. (Previously Presented) The method of claim 47, wherein powering down comprises shutting off power.

51. (Previously Presented) The method of claim 24, wherein the wireless device comprises one from a group consisting of a mobile phone, a text messager, and a personal digital assistant.

52.-79. (Canceled)